

Application No. 10/042,849

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

35. (Currently Amended) A SMIF pod system for holding wafers having an internal environment isolated from ambient atmospheric conditions, comprising:

a transportable pod comprising a pod shell and a door which mates with pod shell defining the internal environment, the transportable pod being receivable on a load port assembly for removal of the wafers; and

a sensor mounted directly to said transportable pod, the sensor being capable of monitoring a condition of said internal environment and transmitting data related to said condition externally of the transportable pod.

36. (Currently Amended) The SMIF pod system of Claim 35, wherein said sensor continuously monitors said condition of said internal environment within said [container] transportable pod.

37. (Original) The SMIF pod system of Claim 35, wherein said data is transmitted using electromagnetic radiation.

38. (Currently Amended) The SMIF pod system of Claim 35, wherein said data is transmitted using electromagnetic radiation [is] in a frequency range of about 3 kHz to about 300 GHz.

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39. (Original) The SMIF pod system of Claim 35, wherein said sensor further includes memory for storing said data related to said monitored condition.

40. (Currently Amended) The SMIF pod system of Claim 35, wherein said sensor is mounted to an internal portion of said transportable pod.

41. (Currently Amended) The SMIF pod system of Claim 35, wherein said sensor includes a plurality of sensor inputs positioned at respective distinct locations within said transportable pod, each said sensor input being capable of monitoring a condition of said internal environment at said respective distinct locations within said transportable pod.

42. (Original) The SMIF pod system of Claim 35, further including:

a transceiver in communication with said sensor, said transceiver capable of receiving and transmitting said data transmitted by said sensor.

43. (Currently Amended) The SMIF pod system of Claim 42, wherein said transceiver is secured to said transportable pod, and wherein said data is transmitted over a network bus.

44. (Original) The SMIF pod system of Claim 42, wherein said data is transmitted between said sensor and said transceiver using electromagnetic radiation.

45. (Original) The SMIF pod system of Claim 44, wherein said electromagnetic radiation is in a frequency range of about 3 kHz to about 300 GHz.

46. (Original) The SMIF pod system of Claim 35, further including a power supply for providing power to said sensor.

47. (Currently Amended) The SMIF pod system of Claim 35, further including at least one more sensor being capable of monitoring a condition of said internal environment and transmitting data related to said condition externally of the transportable pod.

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48. (Original) The SMIF pod system of Claim 35, wherein the condition is a member of the group consisting of humidity, temperature, and acceleration.

49. (Currently Amended) A SMIF pod monitoring system capable of monitoring a transportable SMIF pod having an internal environment isolated from ambient atmospheric conditions, the SMIF pod monitoring system comprising:

at least one sensor capable of being directly mounted to the transportable SMIF pod, said at least one sensor capable of monitoring an internal environmental condition in the transportable SMIF pod and transmitting data representative of said internal environmental condition; and

a transceiver [in] capable of being mounted to the transportable SMIF pod, said transceiver capable of electronically communicating with said at least one sensor, for receiving said data and transmitting said data to a second transceiver located external to the transportable SMIF pod.

50. (Original) The SMIF pod and monitoring system of Claim 49, wherein said transceiver is operatively connected with a processing tool.

51. (Original) The SMIF pod monitoring system of Claim 50, wherein said transceiver provides said data to said processing tool, and said processing tool deactivates if said data is not within a desired operating range.

52. (Original) The SMIF pod monitoring system of Claim 50, further including:

a host computer capable of receiving and processing said data transmitted from said transceiver.

53. (Currently Amended) The SMIF pod monitoring system of Claim 52, wherein said host computer is at a remote location relative to said transportable SMIF pod.

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54. (Original) The SMIF pod monitoring system of Claim 52, wherein said host computer determines if said monitored internal environmental condition is within a desired operating range.

55. (Original) The SMIF pod monitoring system of Claim 54, wherein said host computer deactivates said processing tool if said internal environmental condition is not within said desired operating range.

56. (Original) The SMIF pod monitoring system of Claim 49, wherein the internal environmental condition is a member of the group consisting of humidity, temperature, and acceleration.

57. (Currently Amended) The SMIF pod monitoring system of Claim 49, wherein said at least one sensor includes a sensor comprising a plurality of sensor inputs positioned at respective distinct locations within said transportable pod, each sensor input being capable of monitoring said internal environmental condition at said respective distinct locations within said transportable pod.

58. (Currently Amended) A transportable SMIF pod having an internal environment isolated from ambient atmospheric conditions, comprising:

a pod shell and a door that mates with the pod shell defining the internal environment;

a plurality of sensors mounted directly to said pod, each said sensor capable of monitoring an internal environment condition and transmitting data representative of said internal environment condition;

a transceiver in communication with said plurality of sensors, capable of receiving said data, and capable of transmitting said data to an object located external to the transportable SMIF pod; and

a power supply for providing power to said plurality of sensors.

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59. (Currently Amended) The transportable SMIF pod of Claim 58, wherein at least one of said plurality of sensors is selected from a group consisting of a temperature sensor, a humidity sensor, and an accelerometer.

60. (Currently Amended) The transportable SMIF pod of Claim 58, wherein said communication between said plurality of sensors and said transceiver is performed over a network bus.

61. (Currently Amended) The transportable SMIF pod of Claim 60, wherein the network bus is embedded into the pod shell.

62. (Currently Amended) The transportable SMIF pod of Claim 60, further comprising a plurality of network nodes, each network node being capable of electronically communicating with said network bus, and wherein each sensor electronically communicates with at least one of the network nodes.

63. (Currently Amended) The transportable SMIF pod of Claim 40, wherein said plurality of network nodes are configured as a master-slave network, and wherein said network bus functions as a gateway.

64. (Currently Amended) The transportable SMIF pod of Claim 62, wherein said plurality of network nodes are configured as a peer-to-peer network.

65. (Currently Amended) A method of monitoring an internal environment of a SMIF pod system for holding wafers that is isolated from ambient atmospheric conditions, the method comprising:
providing a transportable pod comprising a pod shell and a door which mates with pod shell defining the internal environment, the pod being receivable on a load port assembly for removal of the wafers;

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providing a sensor mounted directly to said pod, the sensor being capable of monitoring a condition of said internal environment and transmitting data related to said condition externally of the pod, and

sensing the condition of the internal environment by reviewing data transmitted from the sensor.

66. (Original) The method of Claim 65, further including receiving said data transmitted by said sensor with a transceiver that is in communication with said sensor.

67. (Original) The method of claim 66, further including using electromagnetic radiation to transmit the data between said sensor and said transceiver.

68. (Original) The method of claim 65, comprising monitoring an internal condition selected from the group consisting of humidity, temperature, and acceleration.

69. (Original) The monitoring system of claim 66, further including receiving and processing said data transmitted from said transceiver with a host computer.

70. (Currently Amended) A transportable SMIF pod having an internal environment isolated from ambient atmospheric conditions, comprising:

a pod shell and a door that mates with the transportable pod shell defining the internal environment;

a means mounted directly to said pod for monitoring an internal environment condition;

a means for transmitting data representative of said internal environment condition from the means for monitoring;

a means for transceiving communication with said means for monitoring, the means for transceiving being capable of receiving said data, and being capable of transmitting said data to an object located external to the transportable SMIF pod; and

a power supply for providing power to said means for transmitting data.

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71. (Currently Amended) The transportable SMIF pod of claim 70 wherein the means for monitoring an environment condition comprises a sensor, and wherein the means for transceiving communication with said means for monitoring comprises a transceiver.